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I.—*Extracts from the MOHIT (the Ocean), a Turkish work on Navigation in the Indian Seas. Translated and Communicated by JOSEPH VON HAMMER, Baron PURGSTALL, Aulic Counsellor, and Prof. Orient. Lang. at Vienna, Hon. Memb. As. Soc. &c. &c.*

[Continued from Vol. V. p. 468.]

### TENTH CHAPTER\*.

I. *Of certain truths founded on reason and experience ; and of hurricanes (Tufán, τυφων).*

Be it known that the science of navigation is founded on reason and experience ; every thing which agrees with both is certain ; if you ask which certitude is greater, that of reason or that of experience, we answer that this is sometimes the case with reason and sometimes with experience ; the *dair*<sup>1</sup> that is to say the courses<sup>2</sup> and monsoons are more known by experience ; but the knowledge of the celestial signs, the arithmetic rules, the *ighzár*<sup>3</sup>, and *irqáq*<sup>4</sup>, that is to say, the knowledge whether you must keep the sea or steer towards the land, and what belongs to it, is all dependent on reasoning ; again the measures and distances are all founded on experience and on reason conjointly ; but the calculated courses<sup>5</sup>, or rather the regulated tracks<sup>6</sup>

طرق معدودة<sup>6</sup> مجاري محسوبة<sup>5</sup> ارقاق<sup>4</sup> اغزار<sup>3</sup> طرق<sup>2</sup> دیر (written) دایر<sup>1</sup>

\* We have endeavoured as before to meet the illustrious translator's object in favoring us with the continuation of this curious work, by tracing out the places alluded to, and affording such other illustrations as our position in India permits. A copy of the last edition of HORSBURGH containing the latest labors of our Indian marine surveyors, for which we are indebted to Mr. GREENLAW, has been of much use. Most of the native names on the coasts of Arabia, &c. are carefully noted by the Bombay officers.—ED.

are taken from the usual voyages of the ports, that is to say, the results of calculations and distances are the foundations<sup>7</sup>; if the foundations be certain the results are also certain, and if the foundations are false the results be the same. Be it known to you that you must get the knowledge of each place from its inhabitants, which is more certain than the knowledge acquired from strangers, but if the last be men of experience and seafaring people, consult and consider also their information; if the knowledge of the inhabitants be small, and that of the others is well ascertained, the latter is of course more to be relied on.

*Of accidents to be taken care of, and of hurricanes<sup>8</sup>.*

The masters of the Indian seas count ten things to be guarded against<sup>9</sup>.

1. Be on your guard against seeing *Socotora* at the end of the monsoon, because in that is much fear<sup>10</sup>.

2. Be on your guard against seeing *Ghubbei' benna*<sup>11\*</sup> on the 130th day of the Yazdajirdian year, answering to the 360 of the Julálian, (6th March)†; be also on your guard against seeing *Ghubbei Hálole*<sup>12</sup> which is on the south side of *Háfú*<sup>13</sup>‡.

3. Against seeing *Fartak*<sup>14</sup>§ on the 130th day of the Yazdajird. year = 360 Julál. (6th March) if you sail for Yamen; because in some places the Indian flood is very strong, particularly with a northerly wind. Be it known to you that on the 110th day of the Yazdj. year = 340 Jul. (14th Feb.) *Fartak* remains on the north.

4. From the 10th of the Yazdj. year (7th Nov.) up to the 80th (15th Jan.) that is to say, from the 240, to the 310 Jul. not to fall

غبدۀ بنه<sup>11</sup> زيادہ خوف در<sup>10</sup> محسوزات<sup>9</sup> طوفان<sup>8</sup> امہات<sup>7</sup>  
فرتك<sup>14</sup> حافو<sup>13</sup> غبدۀ ہالولہ<sup>12</sup>

\* Quere *Ghabbai-tin* of the 21st voyage from *Diu* to *Maskát*: see vol. V. p. 462, supposed to be near Cape Isolette; *Ghabba* may mean a round or hollow place as a *gulph* or *cove*; *Kubha* or *Gubbha* of the Páli or Sindhu?—ED.

† We have added the English dates adapted to the author's period (1553) making the Yazdajirdian year commence on the 28th Oct. and the Julálian on the 11th March. To adapt the observations to the present date, 10 days more should be added.—ED.

‡ *Ras Hafoon* or *Cape Orfric* of HORSBURGH, on the African coast, lat. 10° 22', long. 51° 16' south of *Guardafui*; "between *Ras Mabber* and this cape lies a deep circular rock-bound bay (doubtless the one here pointed out as *Halula*) in which some of the Egyptian expedition were lost.—*India Directory*, I. 258.—ED.

§ *Cape Fartash* of the maps, N. E. of *Kisseen* on the south coast of Arabia. One Arabian whom we consulted, doubted whether the meaning was not rather that the hatches, (in Hindi *phatta* or *phátak* or gate) should be closely shut as the sea ran very high at that season.—ED.

towards the south, particularly with great ships and if you are sailing for *Maskát* and *Hormúz*.

5. If on the days on which the wind is blowing at *kawas*<sup>15\*</sup> the cape *Yabas*<sup>16</sup> and cape *Sárek*<sup>17</sup> are at hand†, guard against passing to the Arabic coast because it is impossible to make after it any other land but the coast of *Mekrán*.

6. If you wish to reach *Malacca* guard against seeing *Jámas feleh*<sup>18</sup> because the mountains *Jebál Lámeri*<sup>19</sup>‡ advance into the sea, and the flood is there very strong.

7. Be on your guard against seeing on the 90th (25th Jan.) or 200th (15th May) day of the Yazd. 55 or 65 Jul. year from *Gujerát*, *Furmián*<sup>20</sup> and its districts exist *Somenát* and *Gúlinár*<sup>21</sup>§; in seeing the last there is no harm.

8. Be on your guard against being neglectful during the course in the sea of *Kolzum*||, that is to say, in the Arabic gulph, which is that of *Hejáz* and *Jedda*, because the two shores are very near.

9. Be on your guard against neglect in vicinity of the shore; generally you must be on your guard against seeing coasts of any description.

10. Take care to muster on each voyage all your instruments and stores, be it masts, rudders, yards: if the wind be strong shorten your sails, particularly at night, if the sky be clouded, windy, rainy; be on your guard against incurring damage.

Besides these ten *Mahzúrát*<sup>22</sup>, that is, things to be guarded against or to be taken care of, there are also some others which seafaring people must pay attention to. First the circle of the constellation <sup>23</sup>*Nejam ez-zauji*, which the Indians call, the constellation of the *Jogni*, and which by the astronomers of *India*, *China*, *Turkistán* and *Kiptshak* is

<sup>15</sup> كوس    <sup>16</sup> راس يباس    <sup>17</sup> راس سارق    <sup>18</sup> جامس فله    <sup>19</sup> نجم الزوجي  
<sup>20</sup> جببال لامري    <sup>21</sup> فورميان    <sup>22</sup> كواي ناز    <sup>23</sup> محزورات

\* By *kawas* or *kaus*, is generally understood south, perhaps the south-west monsoon.—Ed.

† *Rasul yabas* is one of the projecting headlands south of *Rás ul had*, whence the monsoon would easily take a vessel across to the *Mukrán* coast. It is called *Jibsh* in HORSBURGH (I. 314). *Rasul Sárek* is perhaps another of the promontories here—the nearest in name is *Ras ul Sair* farther down the coast near *Djobar*.

‡ *Jámas, feleh* must be the *Pulo Anzas* or *Mudancoos* of HORSBURGH, two islands lying on the verge of a shoal dangerous of approach on the *Malacca* coast, where *Pulo Loomant* (the *Lameri* of our author) stretches out beneath Parcelar hill. The set of the flood tide here is particularly noticed by the Indian marine surveyors.—*Directory*, II. 226.

§ *Meednee*, *Somnúth* and *Koureenar* (or *Girnar* ?) of the maps.

|| *Kulzum* signifies the great ocean, but it is applied here to the Red Sea.

called that of the eight stars. They fancy it to be like a drunken camel which is roaming every day in a different direction. For example, on the 1, 11, and 21 of the Turkish month it appears in the east; on the 2, 12, and 22 between east and south in the point of compass which the Turkish mariners call *Kashishlama*<sup>24</sup> (S. E.); on the 3, 13, 23, it is seen on the south; on the 4, 14, 24, on the point *Lados*<sup>25</sup> S. W.; on the 5, 15, 25, it is seen on the west; on the 6, 16, 26 between west and north, on the point of compass called *Karayal*<sup>26</sup> N. W.; on the 7, 17, 27, it is seen on the north; on the 8, 18, 28 between north and east on the point of the compass called *Boreas*<sup>27</sup> N. E.; on the 9, 19, 29 it is underneath the earth; on the 10, 20, 30, above it. It should be remembered that the beginning of the Turkish month is not from the sight of the crescent, but from the meeting of sun and moon (or true conjunction) which happens sometimes one and sometimes two days before the first of the Arabic month (the beginning of which is calculated from the sight of the new moon): if you know this take care not to undertake a voyage on that very same day of the conjunction of sun and moon; the masters of the Indian seas are particularly careful about it.

*Of the circle of the men of the mystic world*<sup>28\*</sup>.

SHEKH MOHIYUDDI'N UL-ARABI' has fixed the places in which the men of the mystic world are to be found on each day of the month;

رجال غائب<sup>28</sup> بورياس<sup>27</sup> قرلايل<sup>26</sup> لدرس<sup>25</sup> كششلامه<sup>24</sup>

\* It might be supposed that the two separate superstitions described by SIDI ALI were merely different versions of the same story; for the Indian *yogini* योगिनी, or wandering fairy which he states to be the same as the *najm u'zajt* or circle of the constellations, is by all other authors identified with the *rijal ul ghaeb* or invisible beings. The positions of the *yogini* however correspond only with the latter; and I am assured by a Persian friend that the Turkish 'starry circle,' called also *sakés yaldaz* is quite distinct from the other: he points it out in the constellation of Cassiopeia, to one of the stars of which he gives the name of *naqeh* or camel. (See Obs. on Arabic Compass, vol. V. p. 792.)

This constellation being situated as near the pole as *Ursa major* will be seen, in northern latitudes, like the latter performing a complete circuit round the pole; whence probably has arisen the fable of both their wanderings, but though the circuit will be repeated in 24 hours nearly, it can have no reference whatever to the moon's revolutions.

In Dr. HERKLOT'S *Qanoon-e-Islám*, page 395, will be found a full explanation with diagrams of the mode of finding the lucky and unlucky aspects as practised by the Musalmáns, who merely regard the *day* of the new moon, not the exact time of conjunction, and have further adopted a fixed scale of positions for the days of the week. But to exhibit the orthodox version

viz. on the 7, 14, 22, 29, they are in the east ; on the 4, 12, 19, 27, in the west ; on the 3, 15, 23, 30, they dwell in the north ; on the 8, 11, 18, 25, they stay to the south ; on the 6, 21, 28, between north and east (N. E.) ; on the 4, 5, 13, 20, between north and west (N. W.) ; on the 2, 10, 17, 25, between south and west (S. W.) ; on the 7, 16, 24, between south and east (S. E.) This being known you must not steer in that direction, and if you engage at sea for battle you must be backed by the men of the mystic world ; take care not to fight in a direction against them : and perform, with the face turned towards them, the following prayer :

“ Greeting to you, O men of the mystic world ; O holy spirits ; O ye selected ones<sup>1</sup> ; O ye liberal ones<sup>2</sup> ; O ye vigilant ones<sup>3</sup> ; O ye wanton ones<sup>4</sup> ; O ye pale ones<sup>5</sup> ; O ye insurers<sup>6</sup> ; O you pole<sup>7</sup> ; O ye singular ones<sup>8</sup> ; O ye guardians<sup>9</sup> ; O you who are the best of God’s creatures, aid

امنا ° افراد ° قطب ° امان ° اوتاد ° بُد ° رُبا ° نجبا ° نقبا °

according to the Hindus I have extracted, from an astronomical work called the *समयप्रदीप samaya-pradīpa*, by HARIHAR A’CHA’RYA, the following account of the stations occupied by the *yoginī* at different times.

पूर्वे चन्द्र नवाङ्किते ऋतवहे रामः स्मरारिर्धमे पञ्चम्या सहित स्वधे दशतिथि  
नैऋत्यके द्वादशी वेदस्यापि जलाधिपे भुवनषट् वायैतथा पूर्णिमा षष्ट्याख्याच  
धनाधिपे ऽक्षि दशमी दर्शाष्टकौशङ्करे ॥

योगिनो वामतः पश्चात् गच्छतः शुभकारिणी ।

दक्षिणे पुरतोवापिनशुभेति विदुर्बुध्याः ॥

1 9 3 11 5 13  
Purvè chandra navānkite hutavahe rāma : smarārīr yamē pañchamyā sahītrastra  
12 4 14 6  
yodasatithir nairrītyakē dvādasī vedasyūpi jalādhipē bhūwana śaṭ vāyau tathā  
15 7 2 10 30 8  
purnimā shashthyākhyā cha dhanādhipē akshi dasamī darsāśṭakausankarē.

Yoginī vāmatāk paschāt gachchhatah subhakārinī,

Dakshinē puratovāpi nasubhēti vidur budhā.

“ (The *yoginī*) remains in the east on the 1st and 9th *tithi* or lunar days (of each *paksha* or semilunation) : in the south-east (*agni*) on the 3rd and 11th : in the south (*yama*) on the 5th and 13th ; in the south-west (*alakhī*) on the 4th and 12th : in the west (*jaladhīpa*) on the 6th and 14th : in the north-west (*vāyu*) on the 7th and 15th : in the north (*kuvera*) the 2nd and 10th : and in the north-east (*Isāna*) on the 8th and 30th *tithis*.

“ Whoever goes on a journey does well to keep the *yoginī* on his left or behind him. To place it in the south or in front when going, is accounted unlucky by the pandits.”

HUNTER’S Hindustāni dictionary informs us in addition to the above, that his (or her) influence is exercised especially during the 9 *gharis*, (or 3 hours 36 minutes) at the close of each *tithi* or lunar day, which latter is reckoned not like the civil day but as a thirtieth part of the actual lunation, so as to make it a

me by your aid ; pity me by your pity ; help me with your help ; look on me with your look ; obtain for me my wishes and purposes ; provide for my wants : facilitate my petitions with God in truth, and with man in appearance, by the grace of the lord of apostles, and the favour of the pious Mohammed on whom be peace in this world and in the next." Some say that this prayer is to be repeated 366 times.

Besides this you must take care not to navigate on the unfortunate days of the year which are the 12 of *Moharrem*, 10 of *Safer*, 4 of *Rabi-ul-awal*, 28 of *Rabi-us-sáni*, 26 of *Jamázi-ul-awal*, 12 of *Jamázi-sáni*, 12 of *Rajjab*, 26 of *Shaabán*, 24 of *Ramadhán*, 8 of *Shawwál*, 18 of *Zilkaada*, 8 of *Zilhija*, and the last Wednesday of the year, called the sharp Wednesday\*.

Take also particular care not to navigate when the moon is in the *Scorpion*, and in the burnt days<sup>10</sup>, that is to say, when the moon is in the constellation of *Libra* from the 19th degree of it till to the fourth of *Scorpion* ; but if the moon be actually in the constellation of *Scorpion* the evils attending it belong but to journeys on land ; and this time is, on the contrary, a blessed one for voyages at sea. This is written in the ephemerides of Arabic astronomers ; they have fixed for each of the seven planets a day and a night of the week ; for the sun, *Sunday* ; for the moon, *Monday* ; for Mars, *Tuesday* ; for Mercury, *Wednesday* ; for Jupiter, *Thursday* ; for Venus, *Friday* ; for Saturn, *Saturday*. As to the nights they are under the influence of planets as follows : the night

<sup>10</sup> أيام محترقة

work of some calculation to discover the precise position at any given period. The Hindus still put implicit faith in these astrological absurdities, and the Musalmáns still imitate them in commencing no great undertaking without previous determination of an auspicious moment.—ED.

The best account (however imperfect) hitherto given by European travellers of the *men* of the mystic world is in Mr. LANE's most excellent work on the manners and customs of the modern Egyptians.—H.

\* The greatest possible latitude prevails as to these evil days, HERKLOT says on one authority, that there are 7 in each month, again on another, that there are two, but neither agreeing with these enumerated by SIDI. The *Ajáib ul Makhhlukát* contains another list of fortunate days, giving all but unlucky Wednesday (which HERKLOTS however deems lucky) credit for some good quality—Friday, for cutting nails ; Saturday, because any thing born on it will outlive a week ; Sunday, because creation commenced thereon ; Monday for journeys ; Tuesday, for bathing and shaving ;—Thursday for undertakings ;—but Wednesday, black Wednesday, is fit for nothing but taking medicine ! The last Wednesday of *Safar* called *ákhiri chárshamba* is esteemed the most unlucky of days in the year.

Of the months, according to the same authority the following months only are unlucky, *Safar* and *Rabi-us-sáni*, all the rest are fortunate, *Rajab* and *Ramzán* being particularly so.—ED.

of Sunday belongs to *Mercury*, that of Monday to *Jupiter*, that of Tuesday to *Venus*, that of Wednesday, to *Saturnus*, that of Thursday to *Sol*, that of Friday to *Luna*, that of Saturday to *Mars*. They have divided each day and night into twelve hours, and given to each of them a planet. To find the names of these you must take the final letters of them, and the initials of the days and hours beginning with Sunday, and with the night of Sunday.

For example, you add to the letter<sup>11</sup> (*surkh-dehal*) intended for the days ; those of (*dehal-surkh*) <sup>12</sup>intended for the nights : that is to say, the first hour of Sunday belongs to Sol, the second to Venus, the third to Mercury, the fourth to Luna, the fifth to Saturn, the sixth to Jupiter, the seventh to Mars, the eighth to Sol, the ninth to Venus, the tenth to Mercury, the eleventh to Luna, the twelfth to Saturnus. The first hour of the night of Sunday belongs to Mercury, the second to Luna, the third to Saturnus, the fourth to Jupiter, the fifth to Mars, the sixth to Sol, the seventh to Venus, the eighth to Mercury, the ninth to Luna, the tenth to Saturnus, the eleventh to Jupiter, the twelfth to Mars ; the hours of the other days are to be made out in the same way. As soon as you know the planet of the hour, you know also in what hours you may put to sea, and in which not. By no means in the hour of Saturnus which is unfortunate, but by all means in that of Jupiter, which is fortunate ; not in those of Mars and Sol but in those of Luna and Venus and Mercury.

Some men of talent have comprised the rules of the days of the week, on which navigation is to be undertaken in the following Persian verses :

سوی مشرق دوشنبه	نروی ای برادر من به
آنکه از مغرب آورد کینه	روز یکشنبه است و آذینه
روز سه شنبه و چهار بقال	نروی زنهار شمال
پنج شنبه چوسر بر آرد خور	رفت خود جانب جنوب مبر

“ On Saturday and Monday not to sail,  
O brother, to the East is sure the best.  
Sunday and Friday, are the day which bring,  
Resentful, many evils from the west.  
On Tuesday and on Wednesday, to the north.  
Don't go ; take care, it is of no avail ;  
And on a Thursday when the sun is rising,  
T'wards the south, I beg you'll never sail.”

It has been already mentioned that the tract of sky which is between the point of sunrise and north is called *East*, that between

<sup>11</sup> دیهل سرخ <sup>12</sup> سرخ دیهل

the point of sunset and south is called *West*, that between the point of east and west is called *North*, and on the opposite side *South*. Consider all this when you undertake a voyage ; when, please God, he will make every thing easy to you and your voyage shall be attended with much profit.

Be it known to you that the most dangerous *Tufáns* or storms in India are five. The first begins in India on the 310th day of the Yazdajirdian year,—175th Jul. (1st Sept.) which is called the rein of the elephant. The second is that of *Ohaimer*<sup>13</sup> on the shore of *Ahkáf* from the district of *Madaraka*<sup>14\*</sup> reaching to *Sheher*<sup>15</sup>, and in some parts to *Aden* ; it sets in on the 315th day of the Yazd. = 215 Jul. year (6th Sept.) ; in some years earlier, in some years later.

The third is called that of the forty (*Erbaain*), in the sea of *Hormúz*, it begins on the 50th day of the Yazdajird. year = the 280 Julál. (15th Dec.)

The Fourth that of the girls (*Benát*), known by the name of *winterly wind*<sup>16</sup> ; it sets in from the very place of the *Binát-ul-naash*<sup>17</sup> (the three stars of *Ursa*), and extends nearly to Aden over the whole Arabian continent ; in some years it does not reach Aden : it begins on the 50th day of the Yazdj. year, (15th Dec.) and ends on the new year's day, that is to say, from the 280th to 330th day of the Julálian year, (5th Feb.)

The fifth is that of the ninety (*Tisain*), in the Indian seas ; it sets some years earlier and some years later in ; this *Tufán* extends also to the continent of *Ahkáf* where it comes from *Barr mo*<sup>18</sup>, that is to say, from the shore, the people of *Mahr*<sup>19</sup> call it *Shallit*<sup>20</sup>, and the sea is under the wind ; it lasts till to the 190th day of the Yazdajirdian year—the 55th of the Julálian, (4th May :) this is the strongest of all, and extends, if powerful, over the whole world.

Finished, by the providence of God the omniscient, in the town of *Ahmedábád* the capital of *Gujurat*, in the last days of Moharram 962 (end of December 1554) of the Hejra. Written in the last days of *Rabi-ul-awal* 966, (end of December 1558,) in the town of *Amid*.

برمّل<sup>18</sup> بذات الذعاش<sup>17</sup> ربيع مشتا<sup>16</sup> شهر<sup>15</sup> مدرکه<sup>14</sup> اوحیمر<sup>12</sup>  
شای<sup>20</sup> مهر<sup>19</sup>

\* *Ras Madraka* is, I find by HORSBURGH, Cape Isolette, which I before supposed to be *Ghaibba-i-tin* : the latter may be the rocky bay near it.—ED.

† *Mahrastra* and *Chola* of the west coast, or more probably *Marawa* and *Chola* which with *Karnata* were the most influential states of the peninsula until the 16th century, when they succumbed to the *Vijyanagar* princes.—ED.